## REPORT OF THE

#### NATIONAL PETROLEUM COUNCIL'S

## COMMITTEE ON LIQUEFIED PETROLEUM GAS AVAILABILITY,

# TRANSPORTATION AND MATERIALS REQUIREMENTS

October 31, 1951

W. K. WARREN, CHAIRMAN

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## COMMITTEE ON LIQUEFIED PETROLEUM GAS AVAILABILITY

#### TRANSPORTATION AND MATERIALS REQUIREMENTS

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K. W. Rugh Phillips Petroleum Company

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# COMMITTEE ON LIQUEFIED PETROLEUM GAS AVAILABILITY, TRANSPORTATION AND MATERIALS REQUIREMENTS

The Committee on Liquefied Petroleum Gas Availability,
Transportation and Materials Requirements, appointed by the
National Petroleum Council May 24, 1951, has completed its
assignment and submits this report.

The Committee was appointed following a request of the Oil and Gas Division of the Department of the Interior that such a study be made. The request was initiated by the Natural Gas Production and Processing Division of the Petroleum Administration for Defense.

Subsequent to this request and shortly after the Committee was appointed, the preliminary plans for the introduction of the Controlled Materials Plan necessitated a telegraphic poll of the liquefied petroleum gas producing industry as to its minimum materials requirements. This telegraphic poll gave the Petroleum Administration for Defense the information it desired and that part of the Committee's original assignment later was withdrawn by the Oil and Gas Division, in order to avoid a duplication of effort.

Meanwhile, the Transportation Division of the Petroleum Administration for Defense was engaged in a comprehensive study of transportation requirements under the direction of Mr. John W. Boatwright and in co-operation with the Transportation Committee of the Council. Several of this LP-Gas Committee's members assisted in the drafting of that report, which was presented to the Council at its July 1951 meeting. In view of the comprehensive nature of the report - in which was included the transportation requirements for liquefied petroleum

gas - that portion of the assignment to this Committee also was withdrawn to avoid a duplication of effort since the Petroleum Administration for Defense already had the information it desired.

This report, accordingly, deals primarily with the availability of liquefied petroleum gas and the adequacy of transportation facilities in the light of the liquefied petroleum gas available.

The Chairman of this Committee requested Mr. K. W. Rugh of Phillips Petroleum Company to be chairman of a sub-committee to determine the availability of liquefied petroleum gas.

This sub-committee canvassed the producing industry by questionnaire and was highly gratified by the response, estimating that 122 companies replying represented 99 per cent of the United States total production. This sub-committee's findings is attached and made a part of this report.

Although the transportation portion of the assignment was officially withdrawn, the Chairman assumed the responsibility of asking the previously-appointed sub-committee on transportation, of which Mr. B. C. Graves of Union Tank Car Corporation is chairman, to submit a short report on the adequacy of transportation facilities in the light of the figures reported by the sub-committee on liquefied petroleum gas availability. That report also is attached and made a part of this report.

The Chairman desires to point out, for the record, that this Committee at the outset gave serious consideration to the determination of the number of privately-owned liquefied petroleum gas trucks, by states, in service in the United States.

It was learned subsequently that a questionnaire already had been sent out under the auspices of the Liquefied Petroleum Gas Association, and a request was made to incorporate the returns in this report rather than attempt a duplication of this endeavor. The replies, however, represented less than 50 per cent of the mailing and it was decided that the results were not sufficiently conclusive to be incorporated in this report.

The Committee, on the basis of its study, has concluded that:

- 1. The availability of liquefied petroleum gas, beginning with January 1952 will be at an estimated monthly rate of 380,386,269 gallons, or 9,056,816 barrels, as compared with a monthly rate beginning with January 1951 of 328,690,040 gallons, or 7,825,953 barrels.

  This represents an increase of 15.7 per cent.
- Pressure tank car construction has kept pace with the increased production of liquefied petroleum gas.

#### REPORT OF LIQUEFIED PETROLEUM GAS AVAILABILITY SUB-COMMITTEE

We are pleased to submit the final tabulation of the total availability of liquefied petroleum gas in the United States for the month of January 1951, and an estimate for January 1952. This information was obtained by mailing a questionnaire to the liquefied petroleum gas producers.

We believe that the 122 companies reporting availability this year represent approximately 99 per cent of the United States total production and have, therefore, only increased the actual figures reported by 1 per cent rather than the 5 per cent used last year. Only 13 companies contacted did not answer the inquiry and they were all small producers. The January 1951 actual total production was 328,690,040 gallons versus the estimate for January 1951 used in the last report of 323,807,641 gallons. This means actual production was only 1.5 per cent above the estimate.

The per cent increases estimated for January 1952 over January 1951 are as follows:

	January 1951	January 1952-Estimated (Figures in Gallons)	% Increases
Propane Butane Mixtures	201,605,611 88,040,114 39,045,315	234,064,834 108,198,907 38,122,528	16.6 22.9 - 2.4
Totals	328,690,040	380,386,269	15.7

000

#### REPORT OF TRANSPORTATION SUB-COMMITTEE

The Defense Transportation Administration census of tank cars as of January 1, 1951, reveals that there were 10,302 pressure cars in the liquefied petroleum gas service. It is estimated that these 10,302 pressure cars are capable of moving 164,832,000 gallons per month or approximately one-half of the availability of liquefied petroleum gas in January 1951.

Assuming that 50% of the liquefied petroleum gas availability was consumed where produced or moved by pipe line, highway, or water, then 50 to 75 per cent of the 52,000,000 gallons increase in production January 1, 1952 over January 1, 1951 need to be moved by rail.

Since the first of January and up to the first of October 1951, 1,270 Class 105-A-300 cars have already been constructed capable of moving 20,320,000 gallons of increased production. However, 1,071 Class 105-A-300 cars are scheduled for completion during the months of October, November and December 1951, capable of transporting 17,136,000 ballons or a total of 37,456,000 additional gallons or 72% of the total increased liquefied petroleum gas availability January 1, 1952 as compared with January 1, 1951. Of course, additional Class 105-A-300 cars will be completed in January, February and March 1952 but these have been disregarded.

In addition to the above-mentioned constructed cars and those to be completed this year which are definitely identified as liquefied petroleum gas cars, there are 377 Class 105-A-300 cars programmed for construction which are doubtful as to their availability for liquefied petroleum gas as they have

been described as anhydrous ammonia-propane cars, and it is probable that additional cars of this description will be completed in October, November and December of this year, some of which may be made available for liquefied petroleum gas.

In the foregoing analysis no consideration has been given to additional pipe line transportation which may become available prior to January 1, 1952 and its effect on the transportation of the increased availability of liquefied petroleum gas.

It is concluded from this study that tank car construction has kept pace with the increased production of liquefied petroleum gas.

# UNITED STATES DEPARTMENT OF THE INTERIOR OIL AND GAS DIVISION

C O P Y

Washington 25, D. C.

September 28, 1951

Mr. Walter S. Hallanan, Chairman National Petroleum Council 1625 K Street, N. W. Washington, D. C.

Dear Mr. Hallanan:

On May 8, 1951, I requested that the National Petroleum Council make a study of the probable availability of liquefied petroleum gas, adequacy of transportation facilities for movement thereof, and minimum materials required for production and transportation to alleviate possible shortages.

This is to advise that studies already completed by the Petroleum Administration for Defense satisfactorily cover the matter of transportation and of material requirements, and make it unnecessary for Council to cover these matters.

In view of the situation, I am formally withdrawing my request to the Council to include the study of adequacy of transportation facilities and of minimum materials required for production and transportation.

It is requested, however, that the National Petroleum Council continue its study of probable availability of liquefied petroleum gas, and I trust that the report may be available at an early date.

Sincerely yours,

/S/ H. A. Stewart

H. A. Stewart Acting Director C O P

# UNITED STATES DEPARTMENT OF THE INTERIOR OIL AND GAS DIVISION Washington 25, D. C.

May 8, 1951

Mr. Walter S. Hallanan, Chairman National Petroleum Council 1625 K Street, N. W. Washington, D. C.

Dear Mr. Hallanan:

Significant changes in the liquefied petroleum gas situation have occurred since the submission by the National Petroleum Council of its last over-all report on this subject. During the winter of 1950-51, there were repeated local spot shortages of liquefied petroleum gas and there are indications that spot shortages or tight situations could easily occur during the coming winter.

The National Petroleum Council is requested to study the probable availability of liquefied petroleum gas, adequacy of transportation facilities for movement thereof, and minimum materials required for production and transportation to alleviate possible shortages, and submit such report and recommendations with respect thereto as it may deem appropriate.

Sincerely yours,

/s/ H. A. Stewart

H. A. Stewart Acting Director